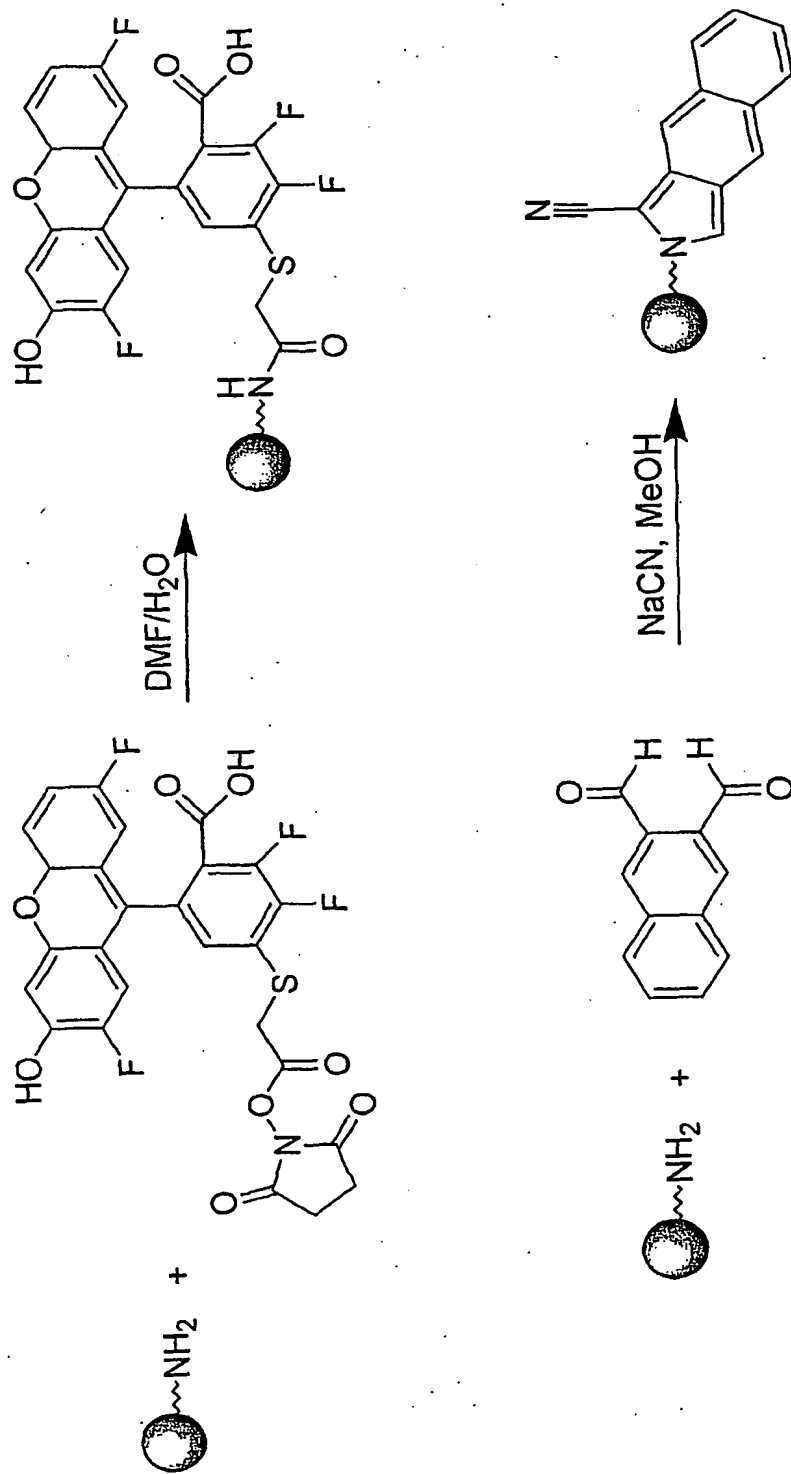


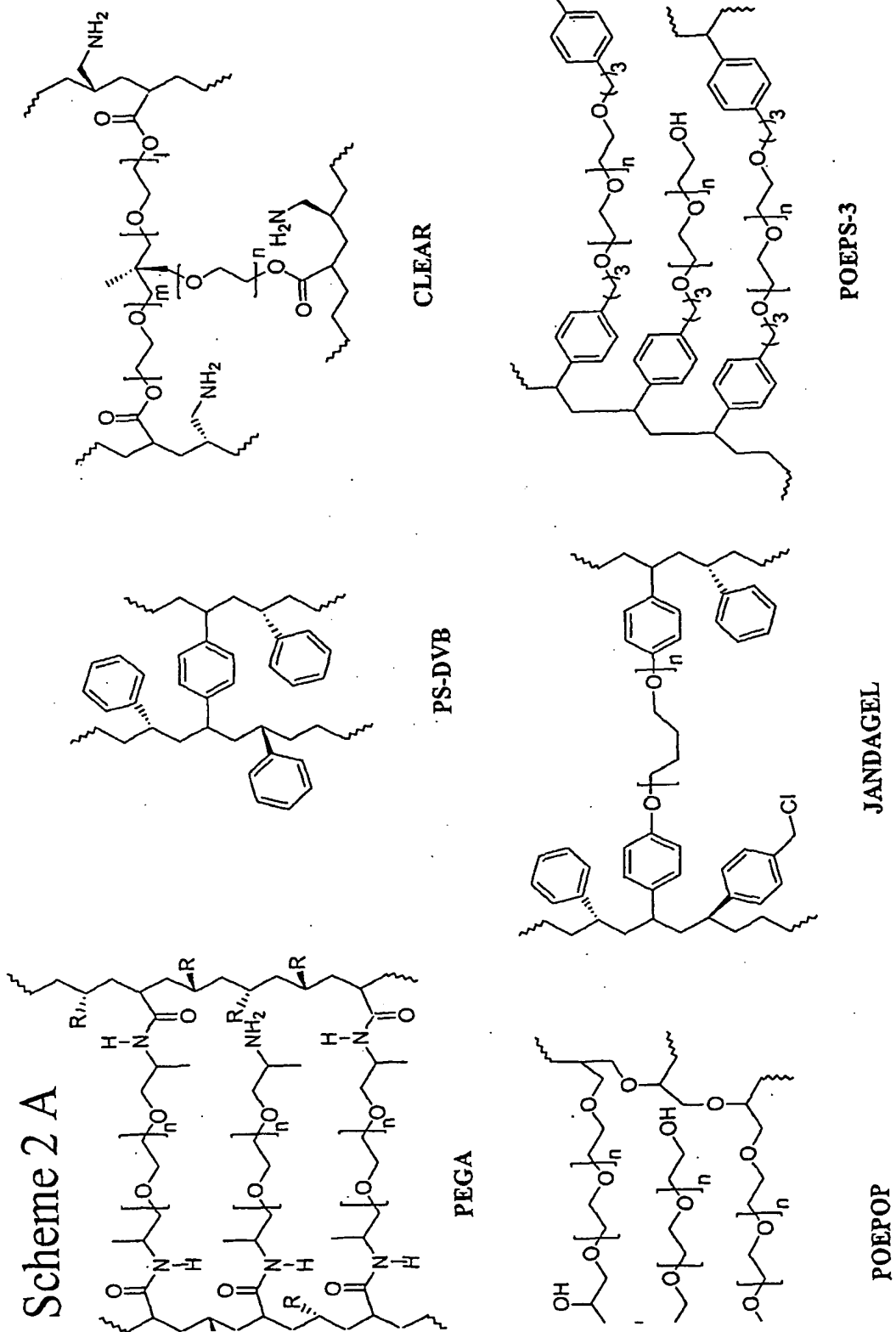


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Scheme 1 B



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Scheme 2B

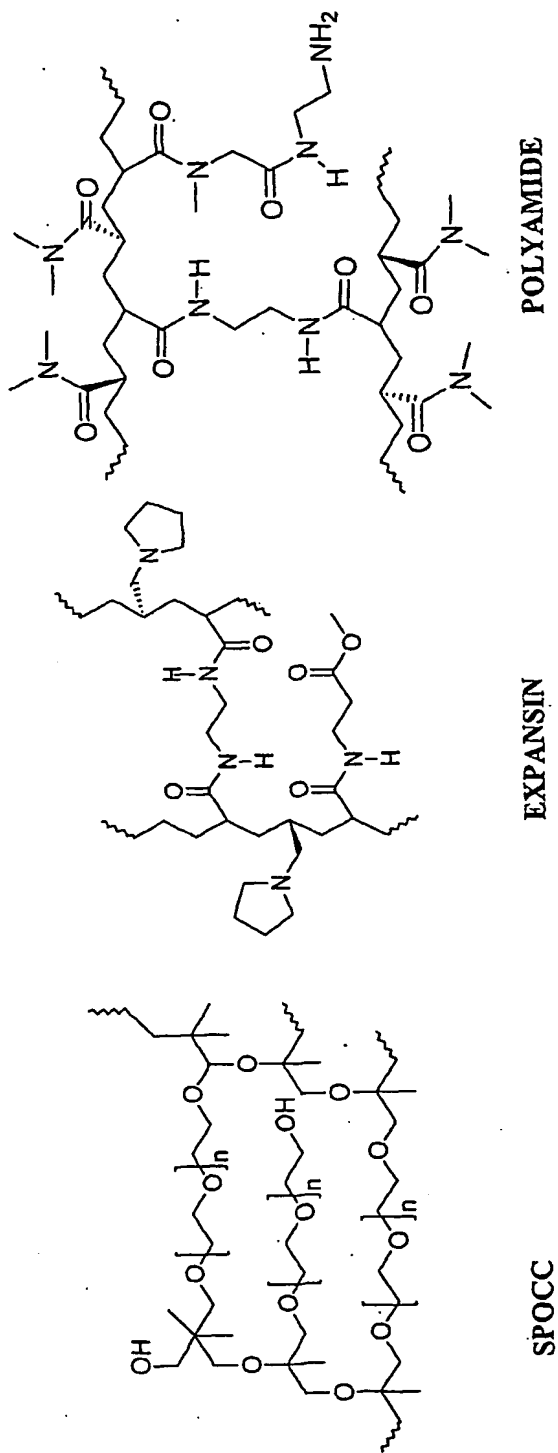
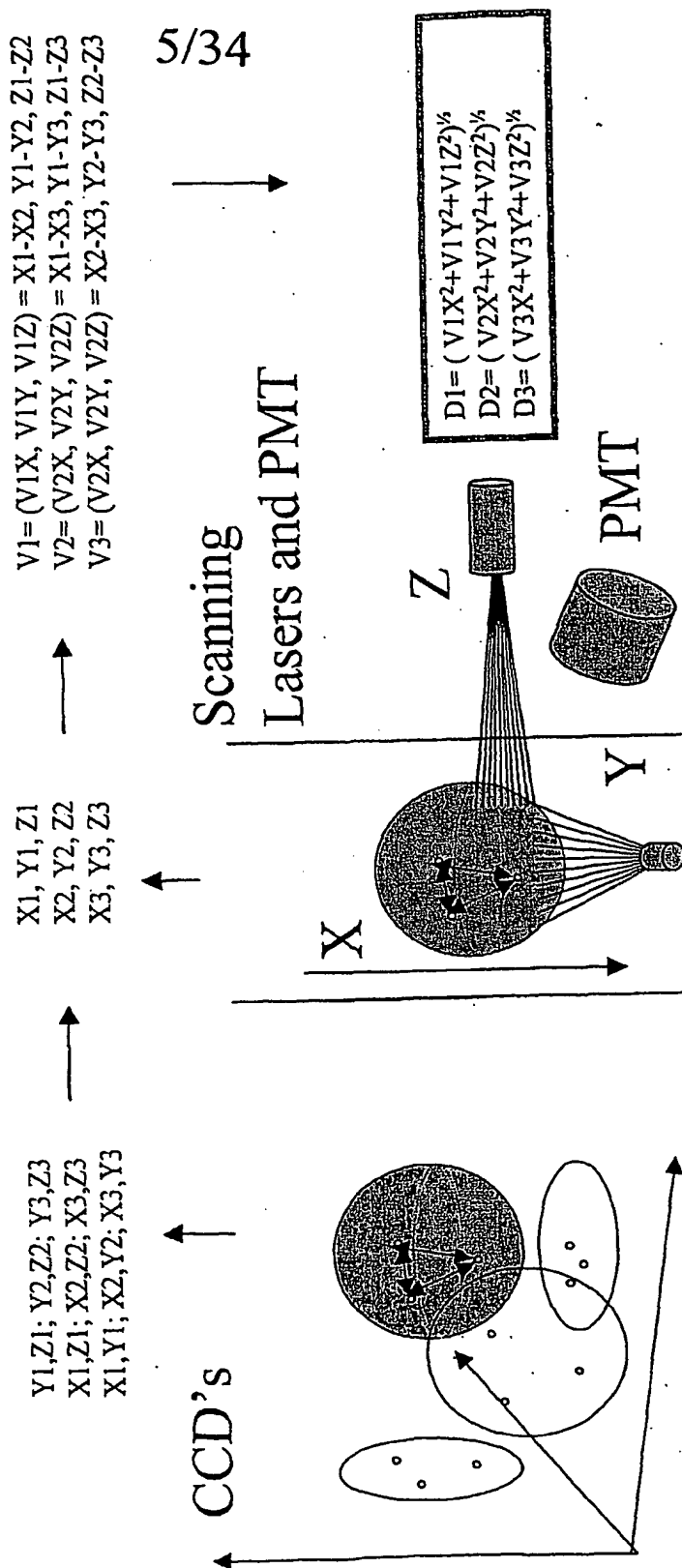


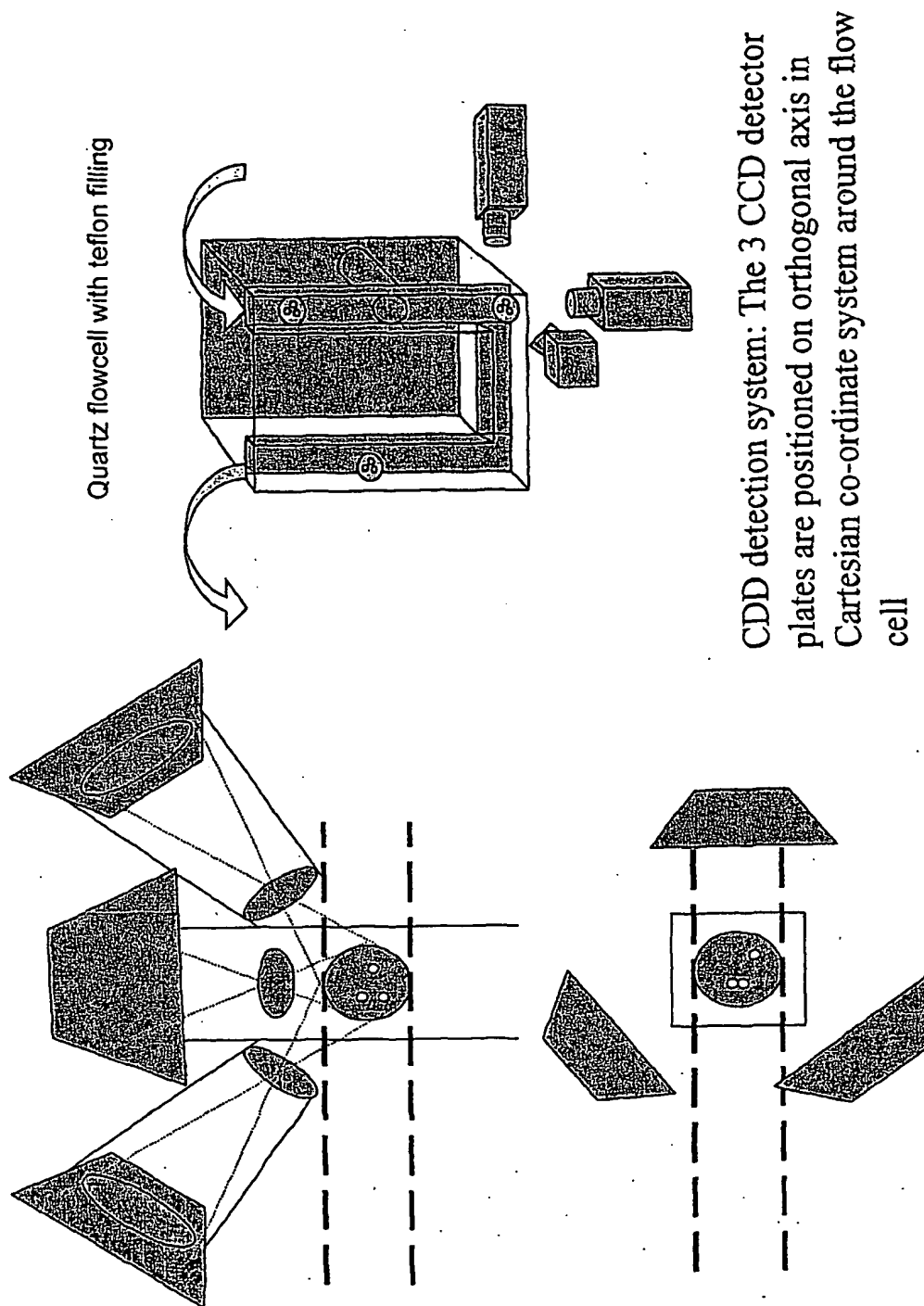
Fig. 1

# Spatial encoding of beads



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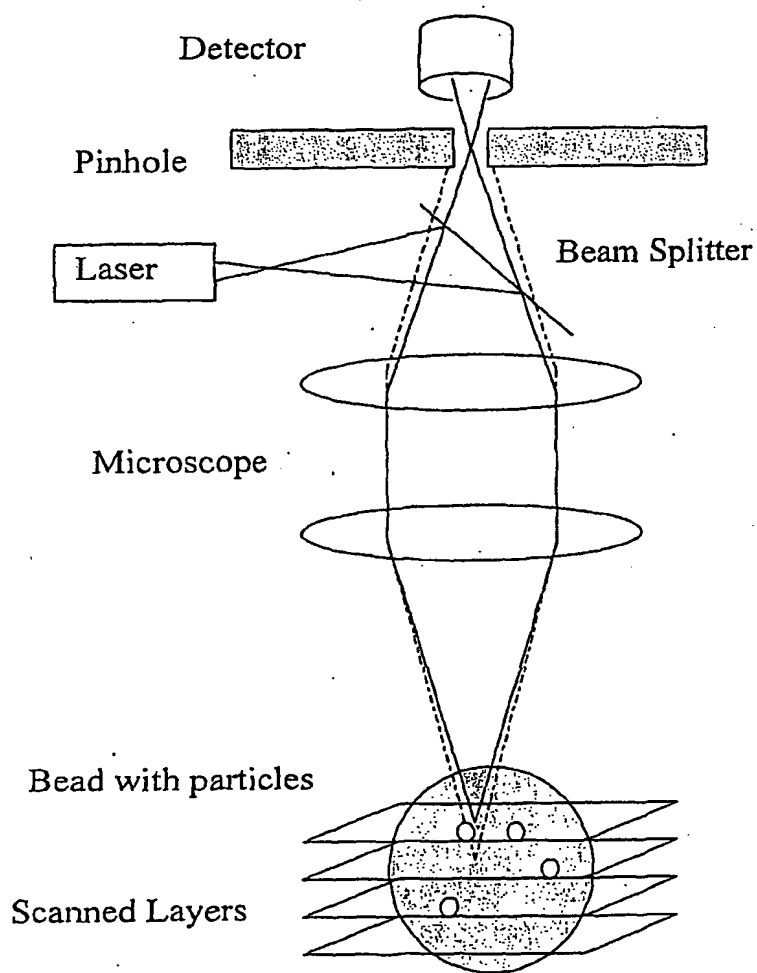
Fig. 2 CCD detection



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Fig. 3

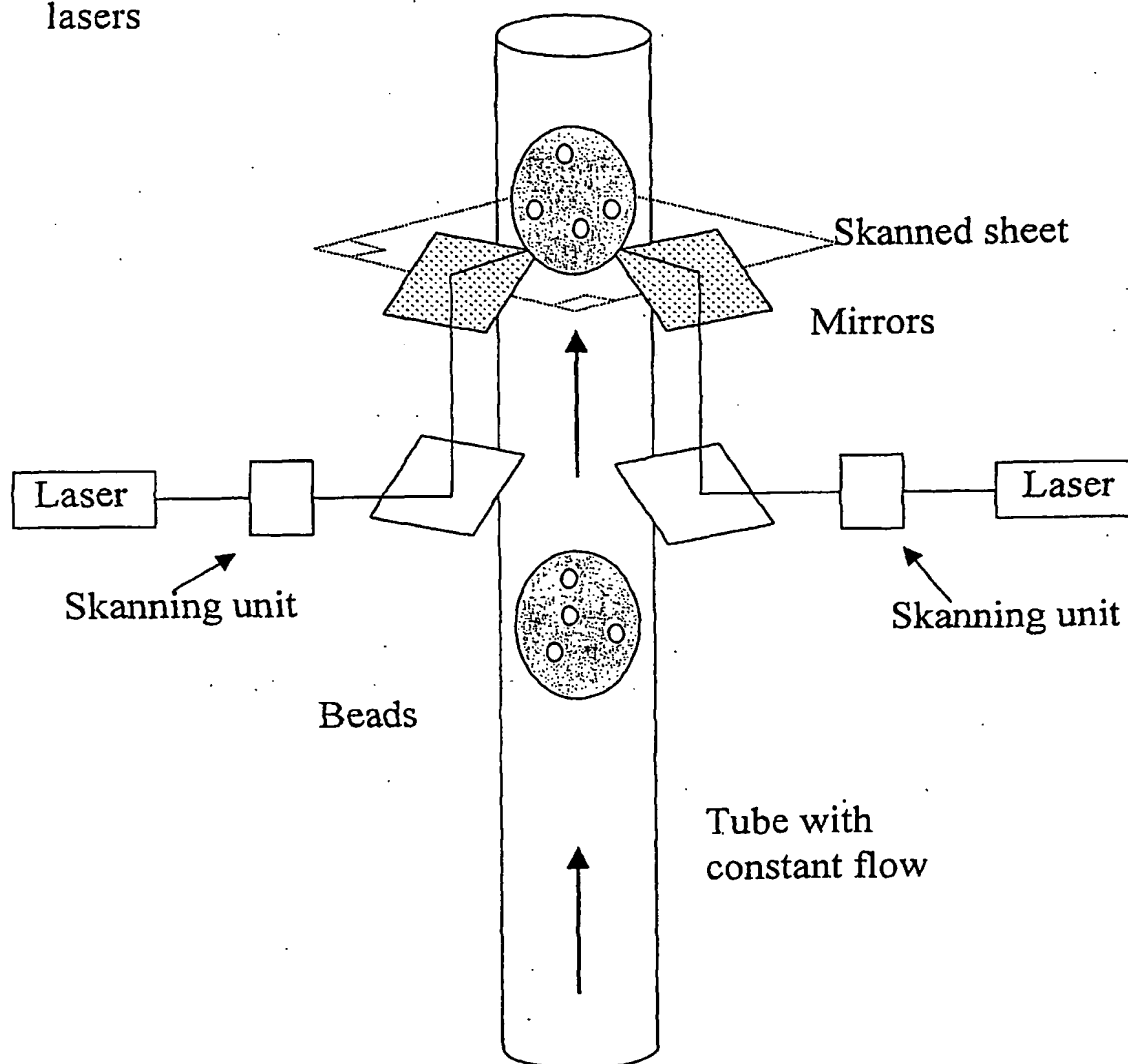
Recording of coordinates of particles in a bead using focal or confocal microscopy



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Fig. 4

Recording of coordinates of particles in a moving bead by two alternating scanning lasers

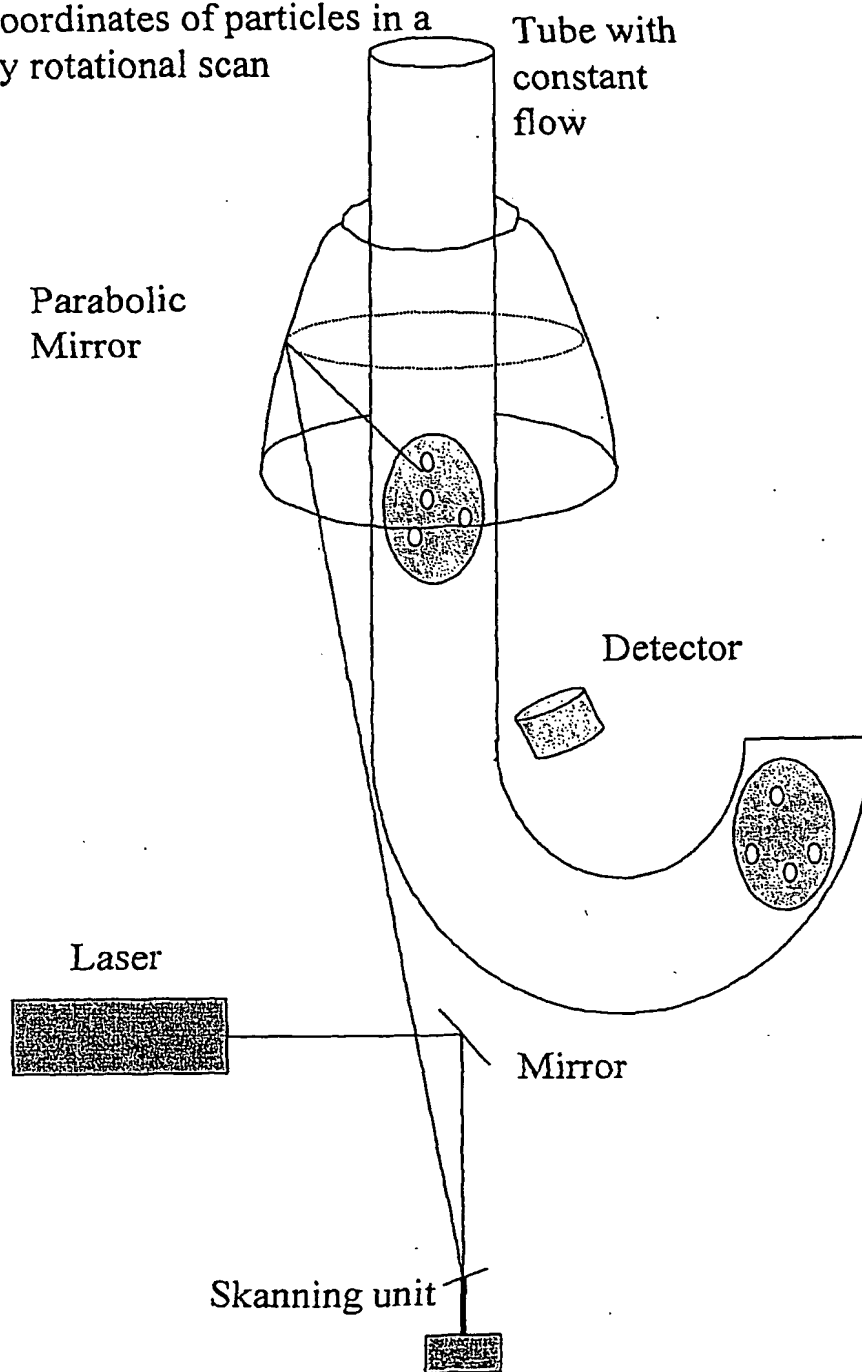




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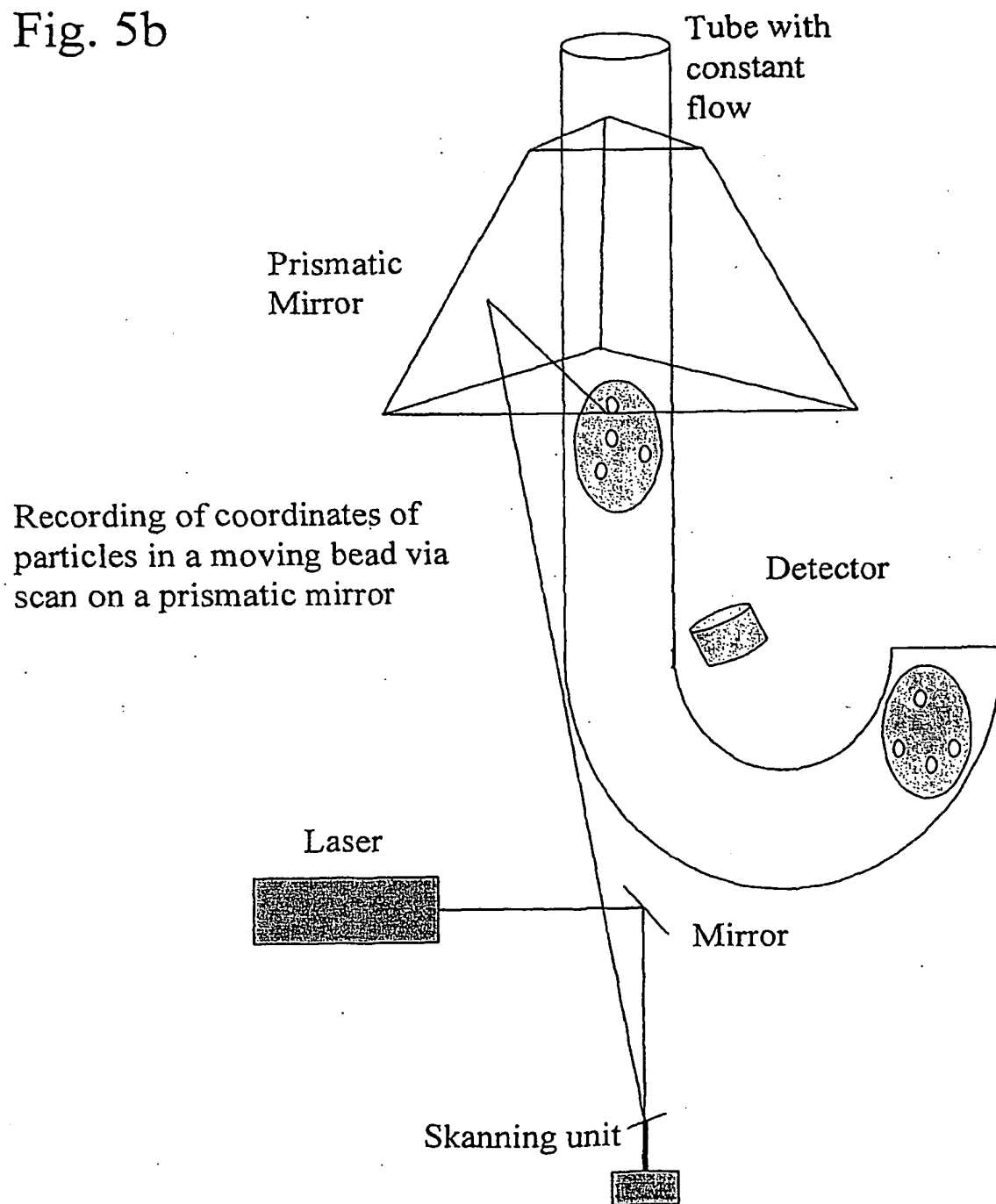
Fig. 5a

Recording of coordinates of particles in a  
moving bead by rotational scan



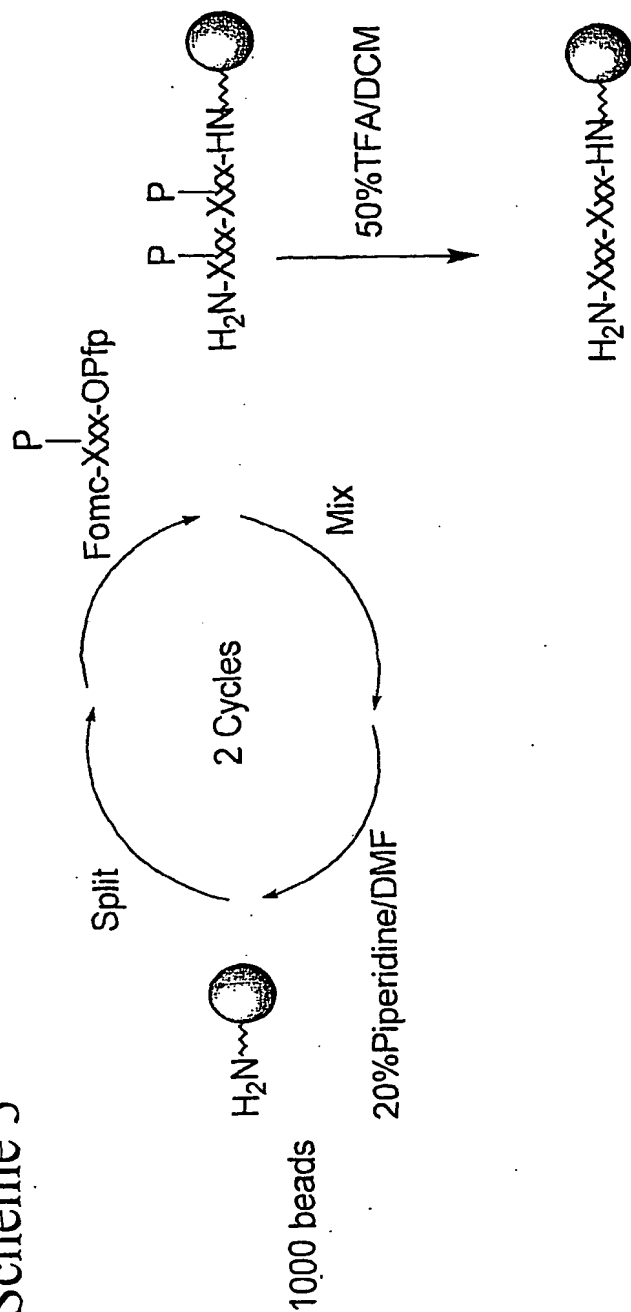
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Fig. 5b



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Scheme 3

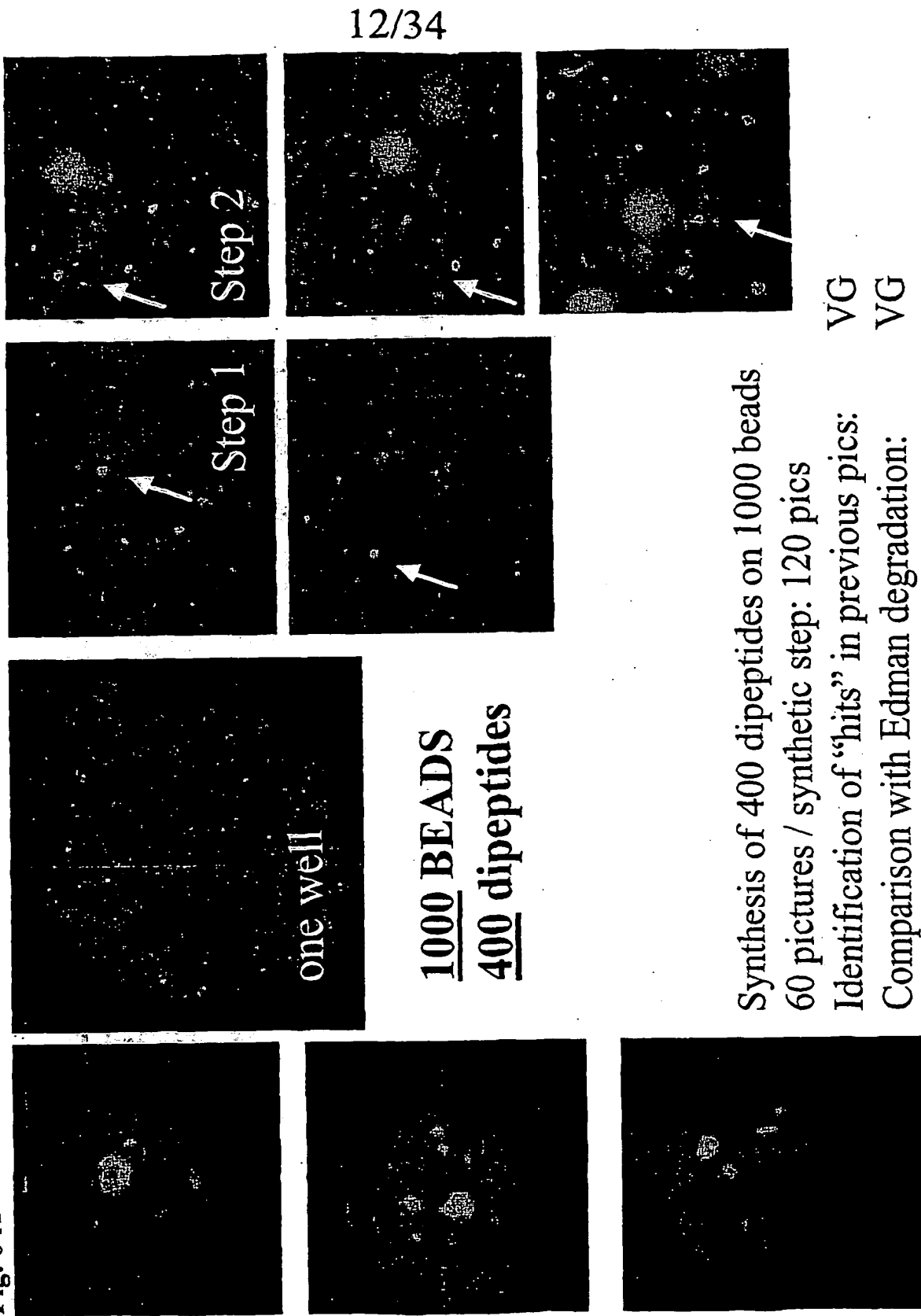


400 dipeptide  
one peptide/bead

Dipeptide library  
synthesis

P = protective group  
Xxx = amino acid

Fig. 6 A Visual decoding of dipeptide library



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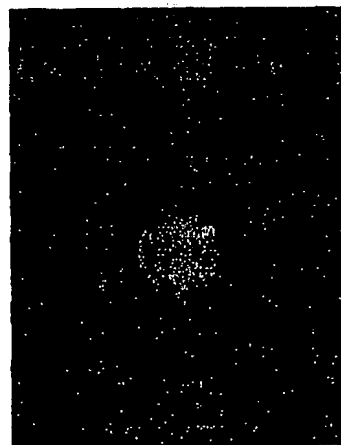
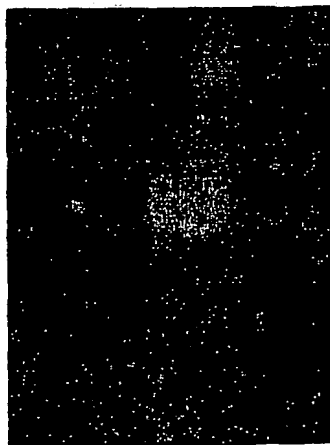
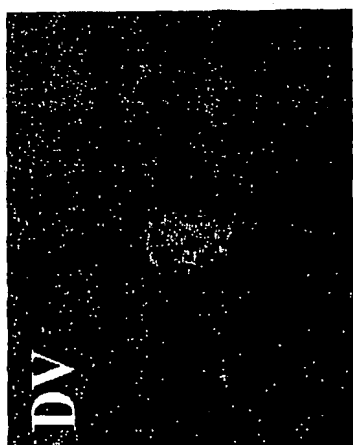
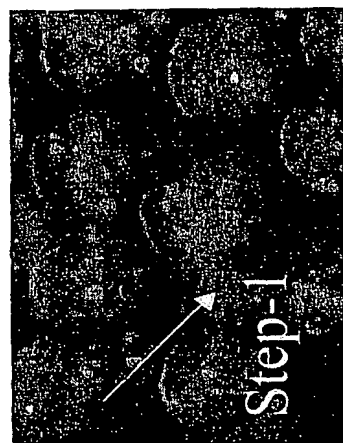
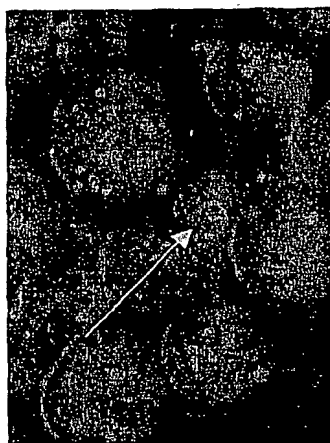
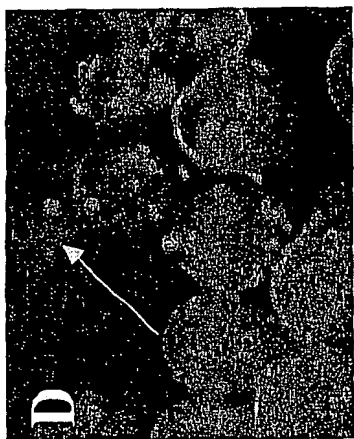
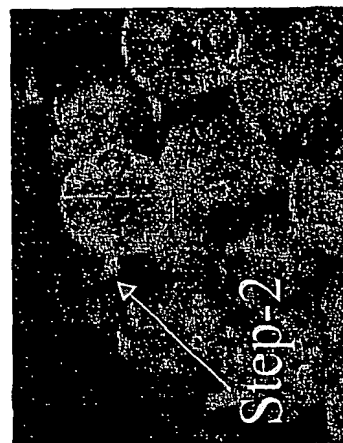
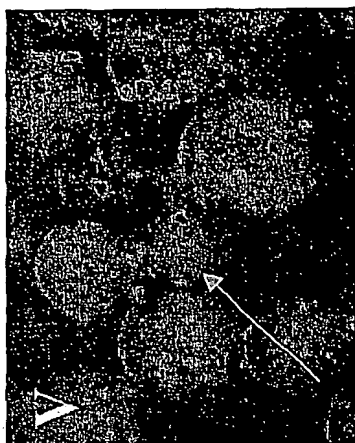


Fig. 6 B

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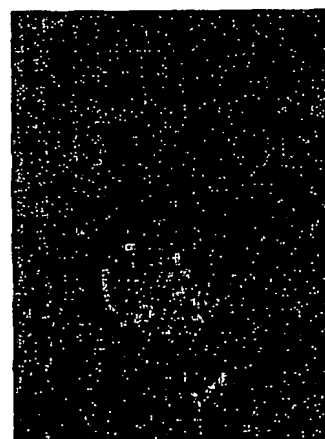
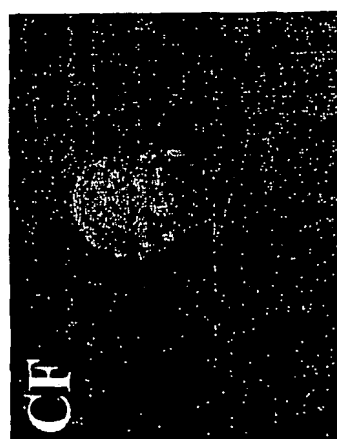
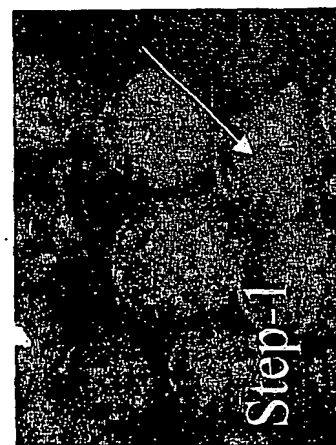
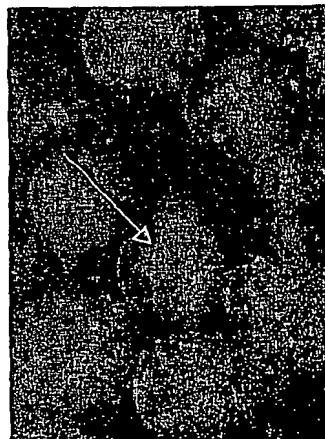
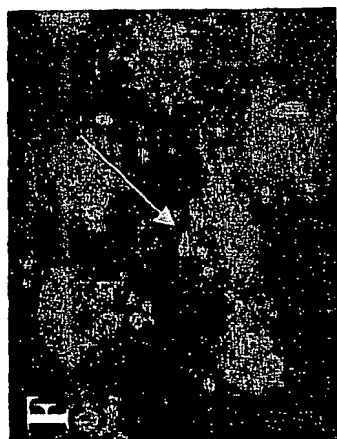
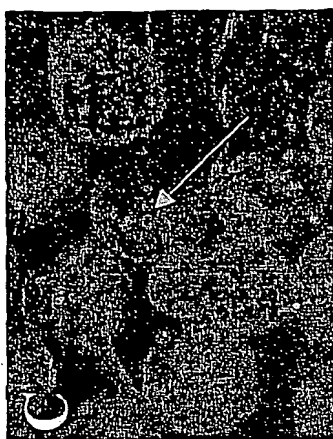
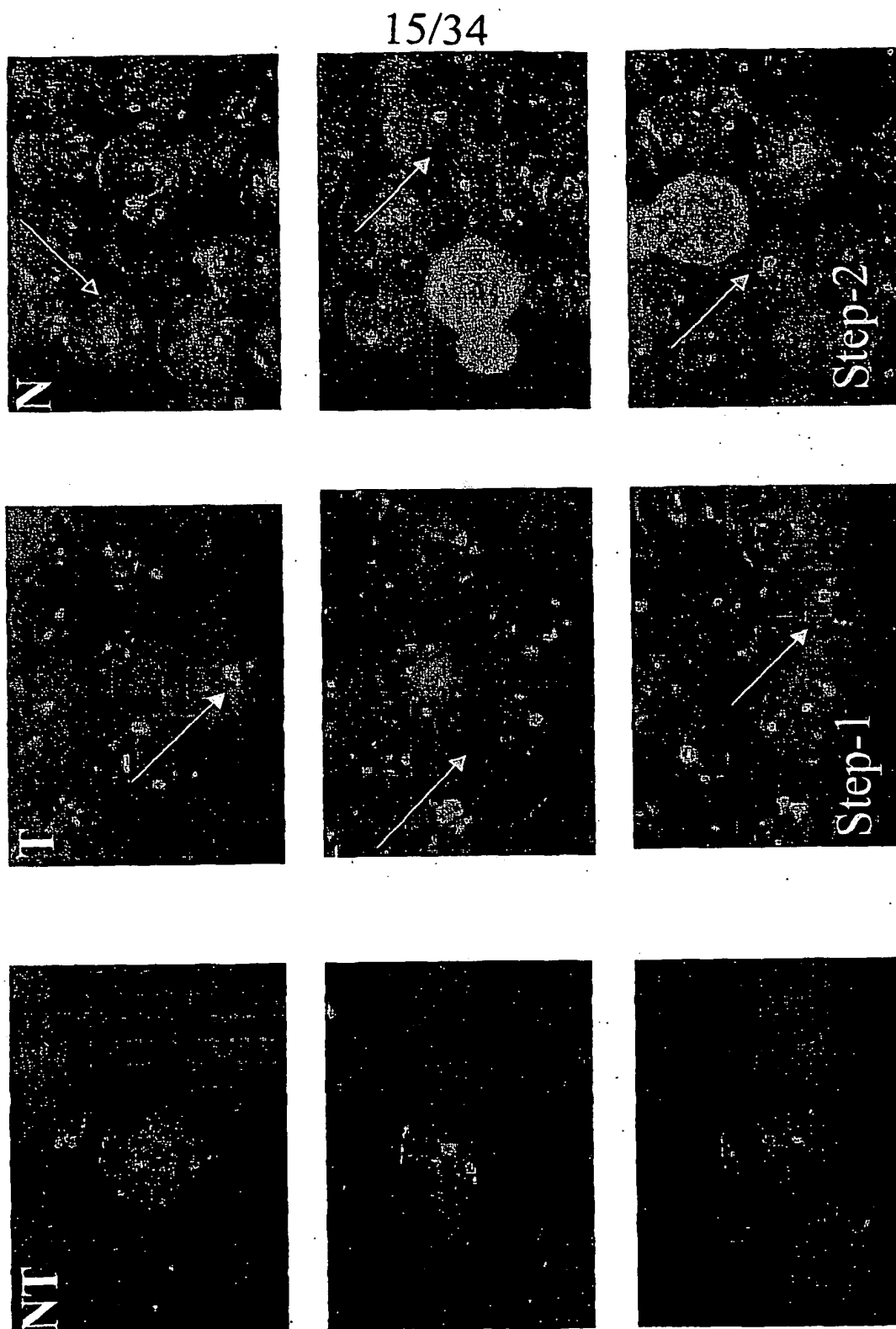


Fig. 6 C



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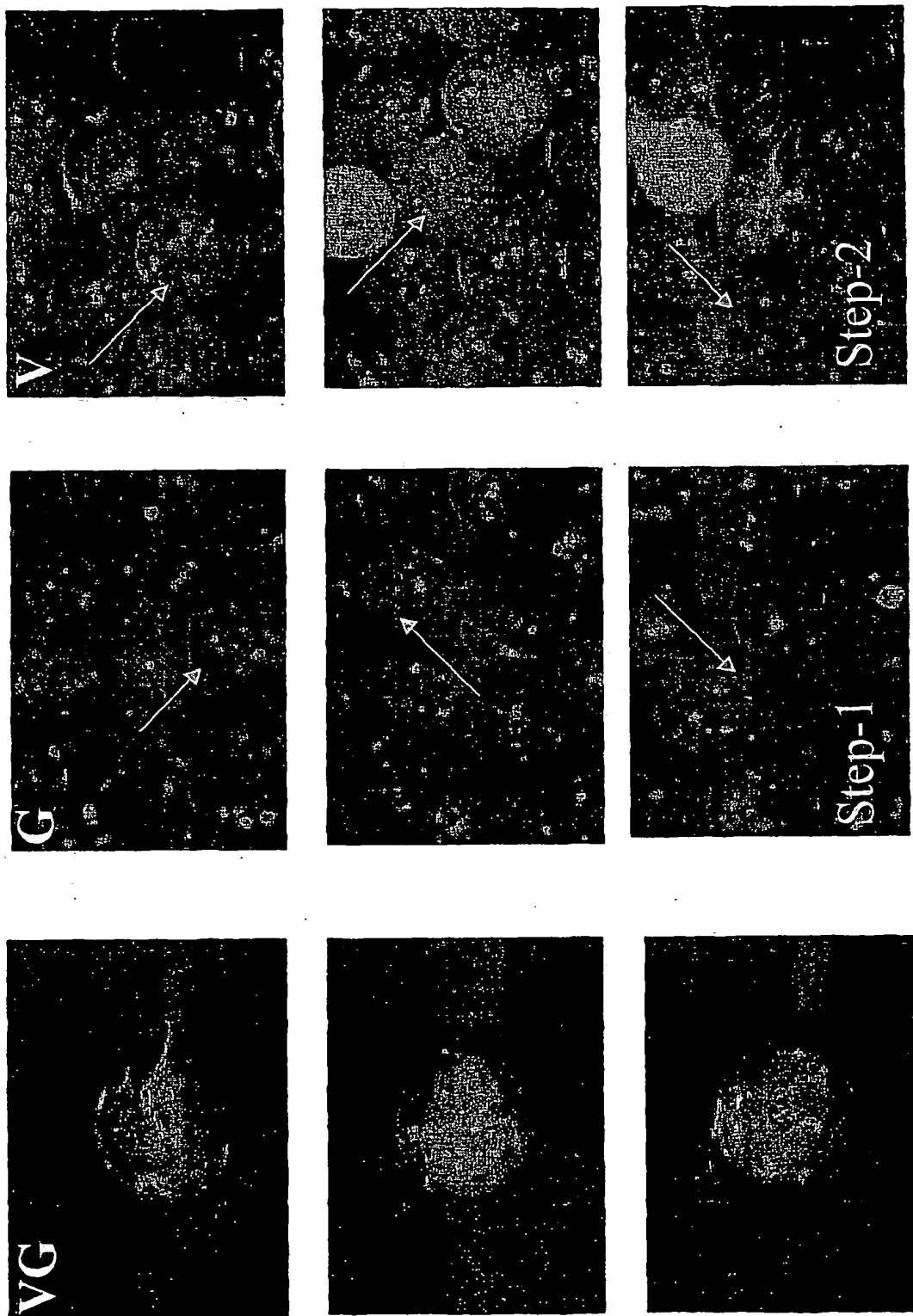


Fig. 6E



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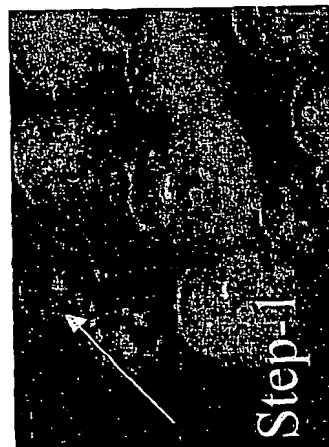
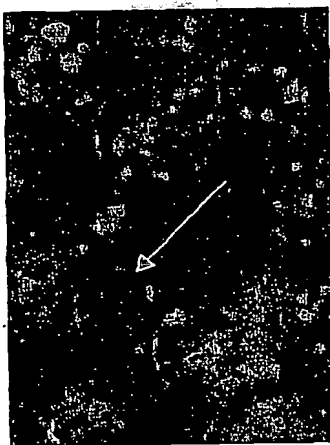
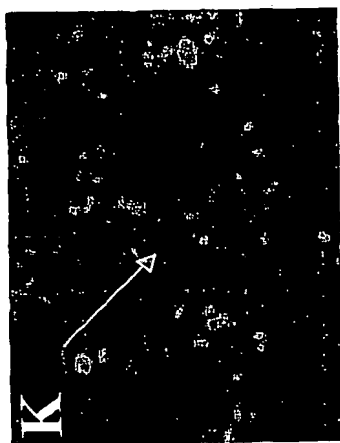
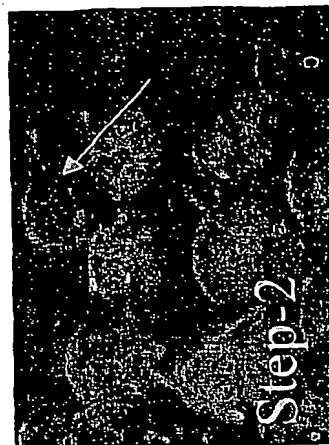
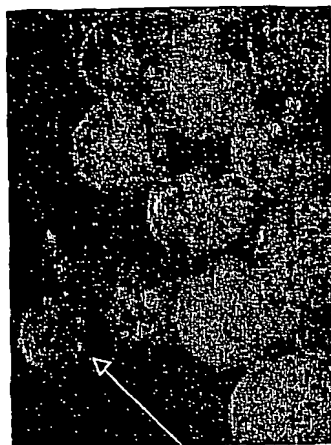
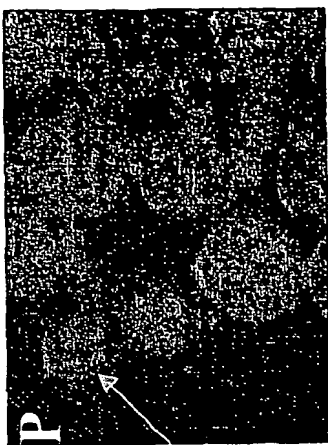
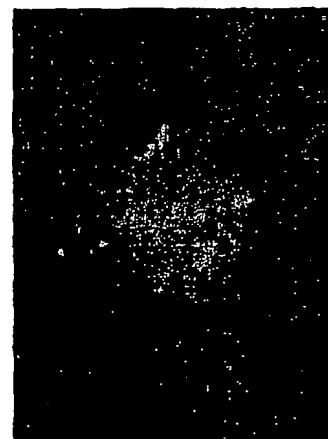
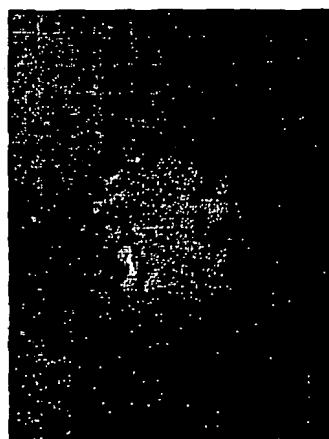
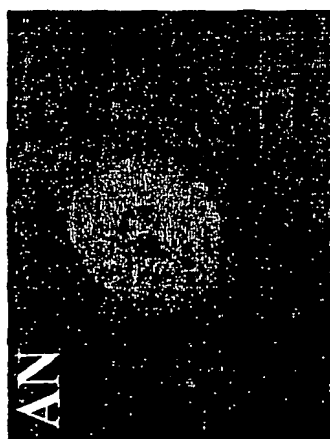
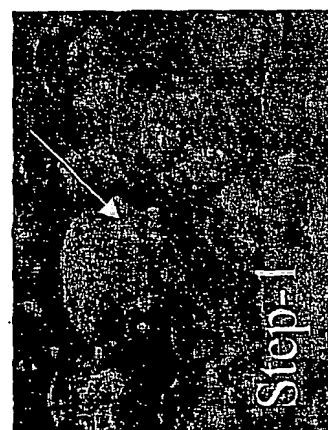
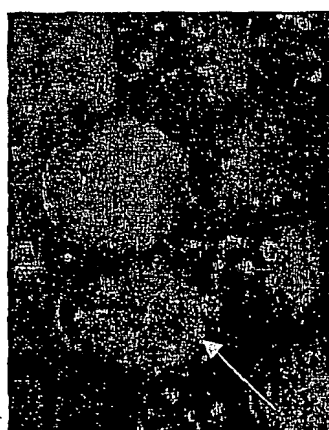
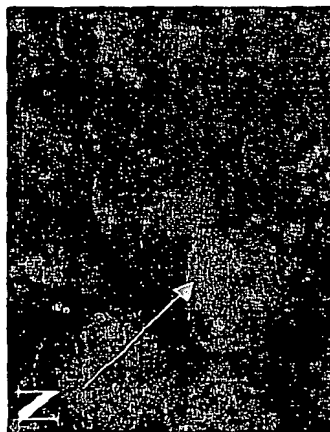
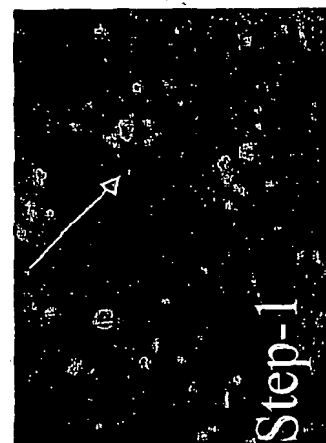
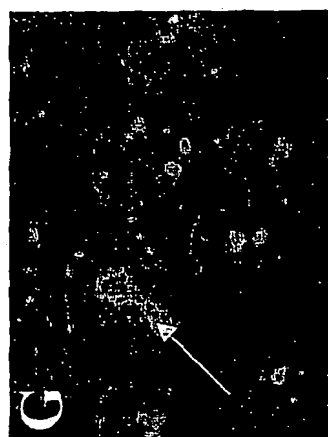
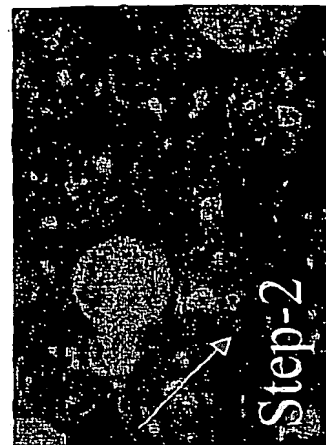
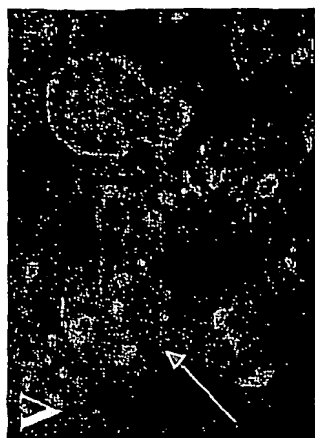


Fig. 6 FPK

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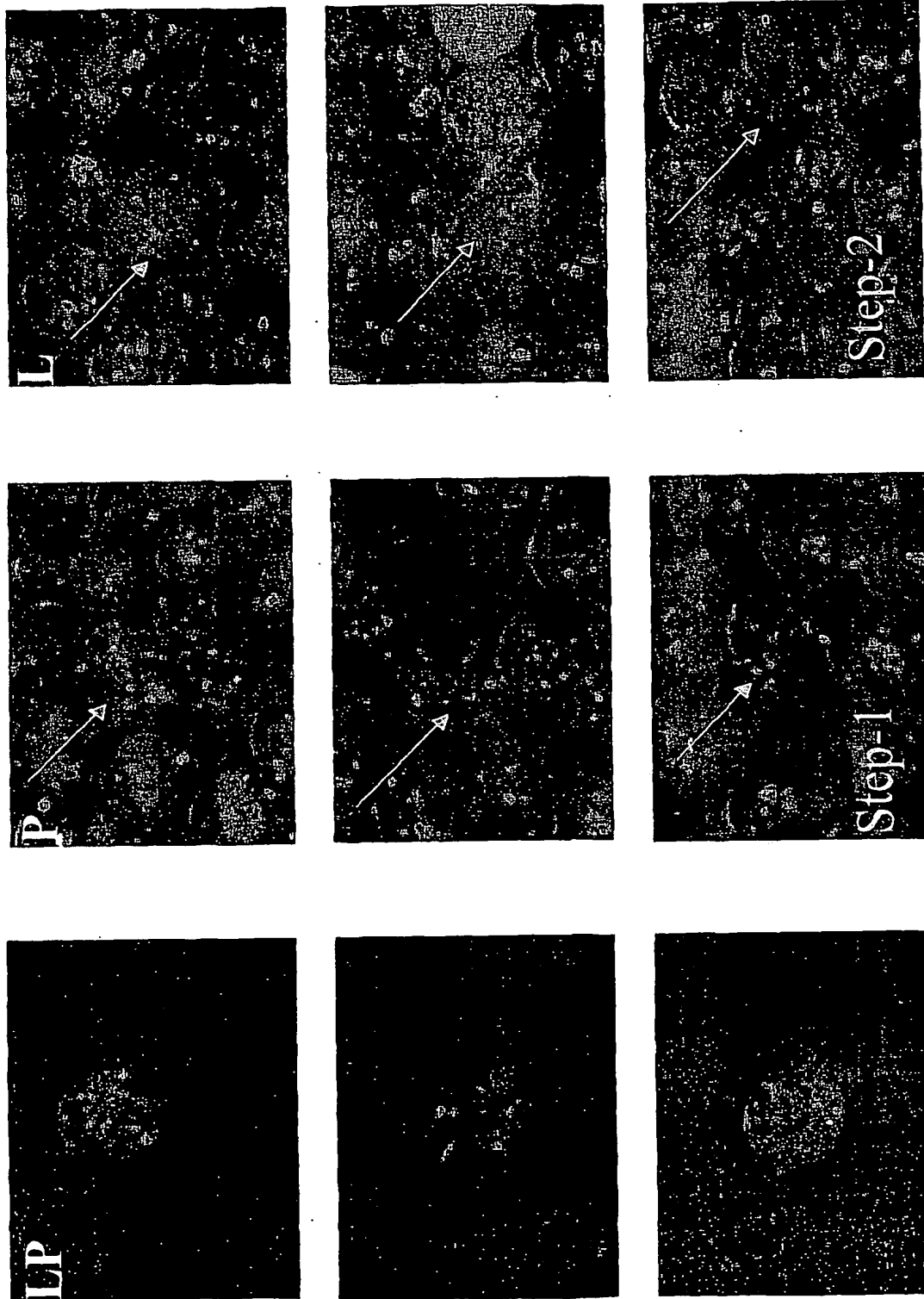


Fig. 6 ILP

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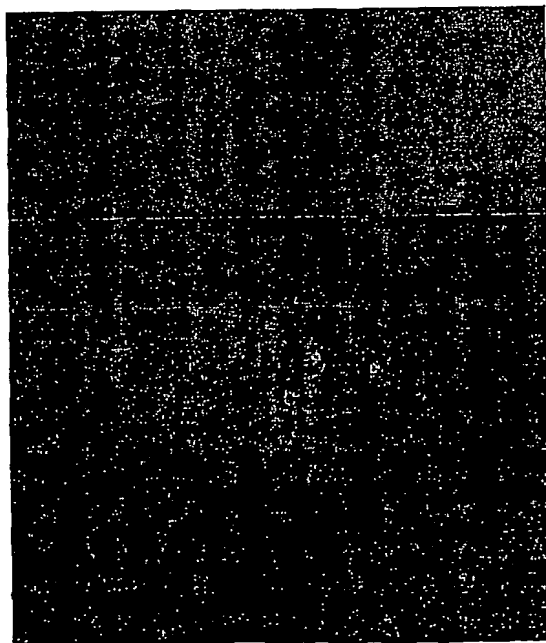
Table 1 Visual decoding of 20 beads from a library containing 400 dipeptides

	Seq	Pic	Other possible	
1	CF	CF		
2	AT	AY		
3	DV	DV		
4	EV	EF		
5	FR	FD		
6	GM	GM	GF	
7	IV	IV	IP	
8	LP	LP		
9	WG	WW		
10	YW	YW		

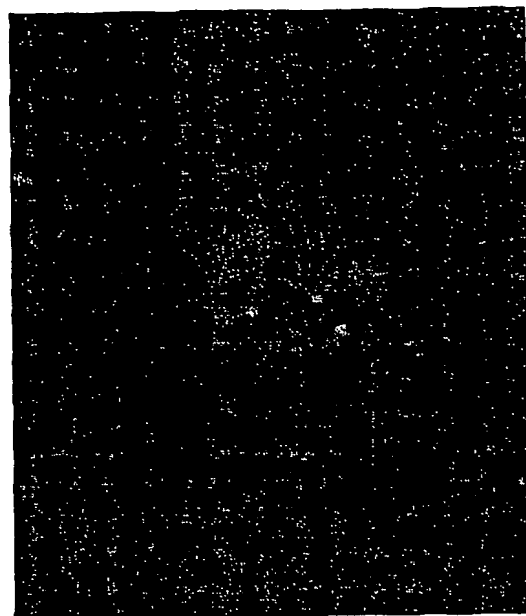
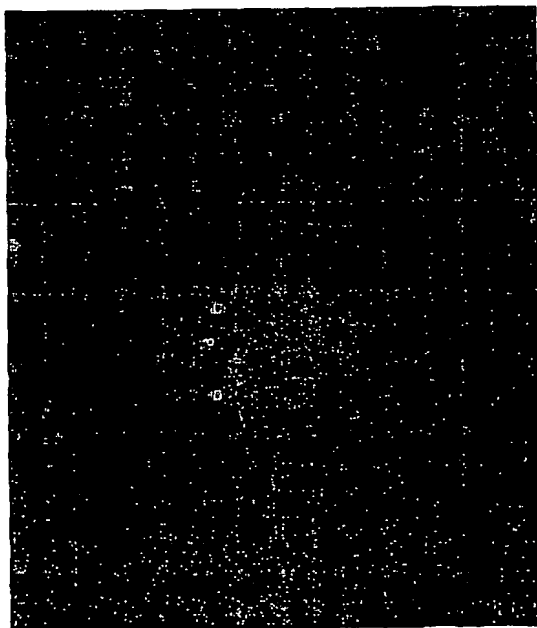
  

	Seq	Pic	Other possible	
11	HF	HL		
12	NT	NT		
13	AN	AN		
14	PH	PF		
15	PK	PK		
16	FR	FR	FH	VR
17	VG	VG		
18	RQ	RQ	VQ	
19	VG	VG		
20	AL	AL	VL	AI

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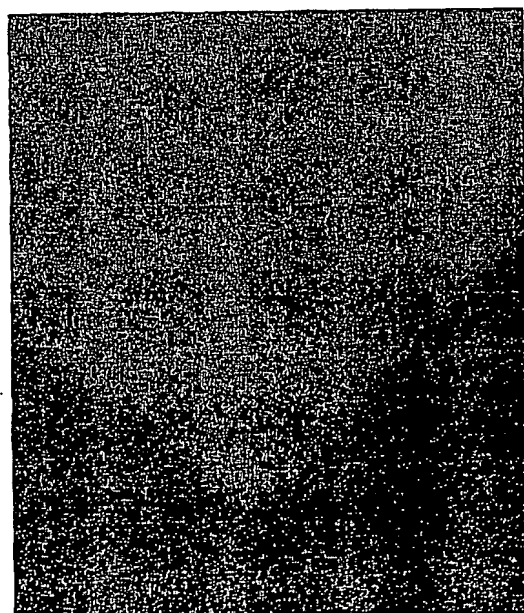
**Fig. 7 A 3 Orthogonal pictures**

0,0	0,0	0.0
X1, X2	X1, X2	Y1, Y2
Y1, Y2	Z1, Z2	Z1, Z2

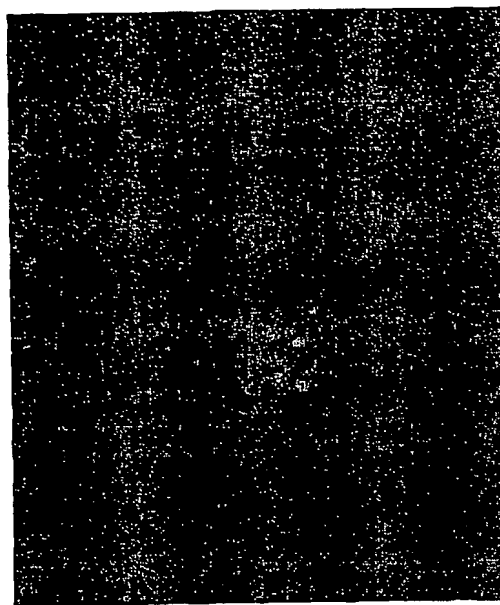
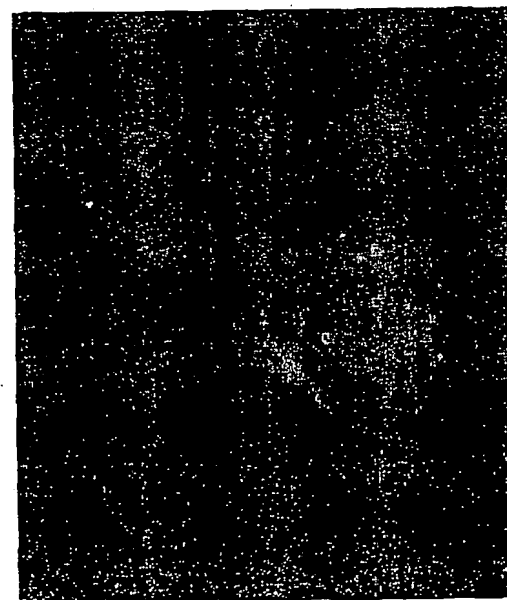


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Fig. 7 B 3 Orthogonal pictures

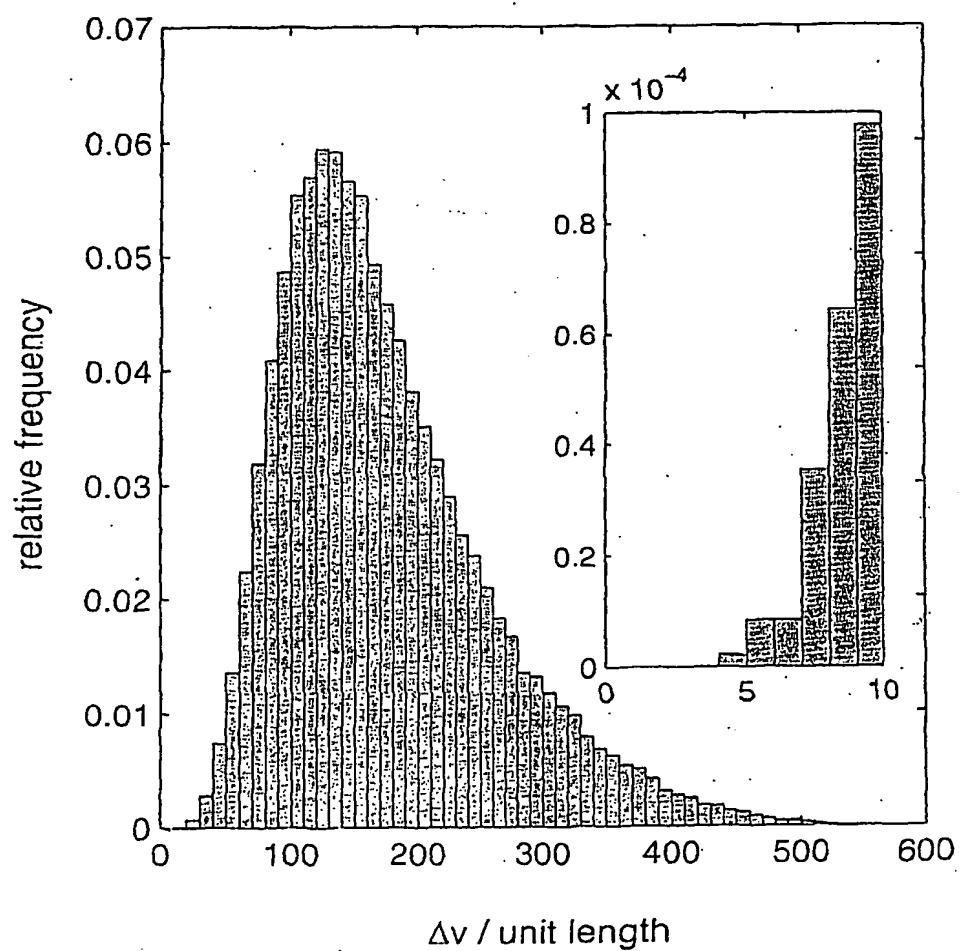


0,0	0,0	0.0
X1, X2	X1, X2	Y1, Y2
Y1, Y2	Z1, Z2	Z1, Z2



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Fig. 8





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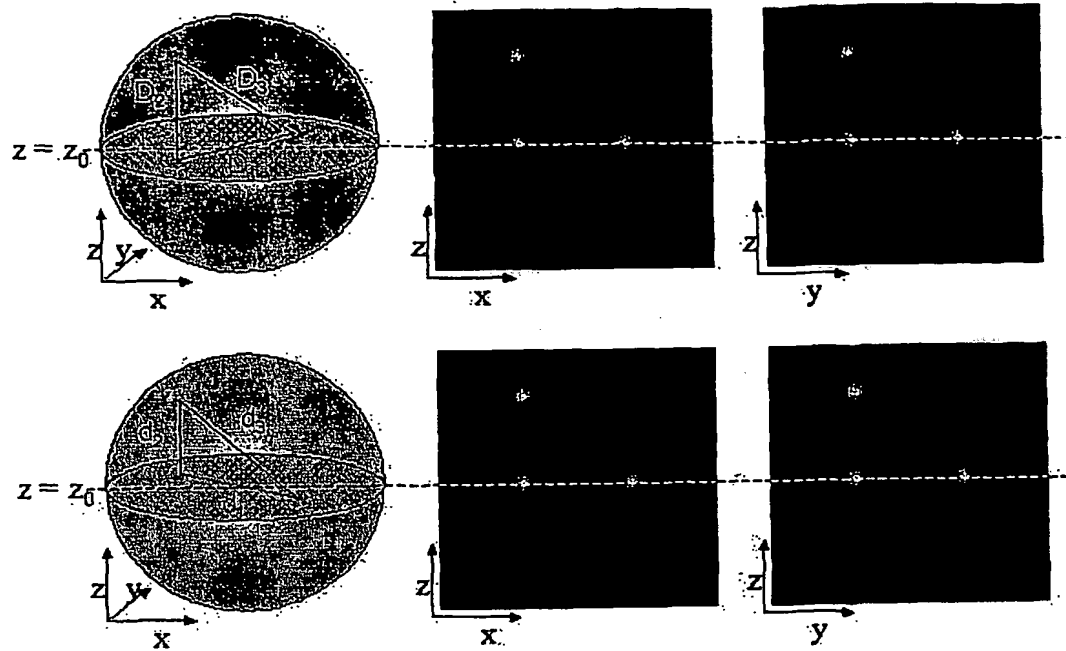


Fig. 9

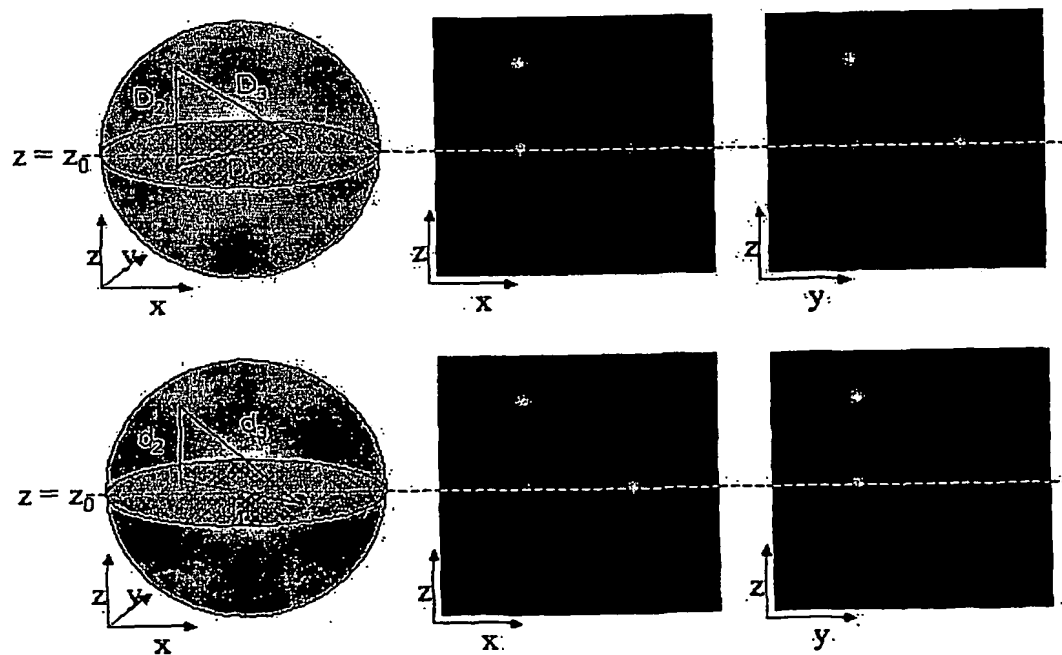


Fig. 10

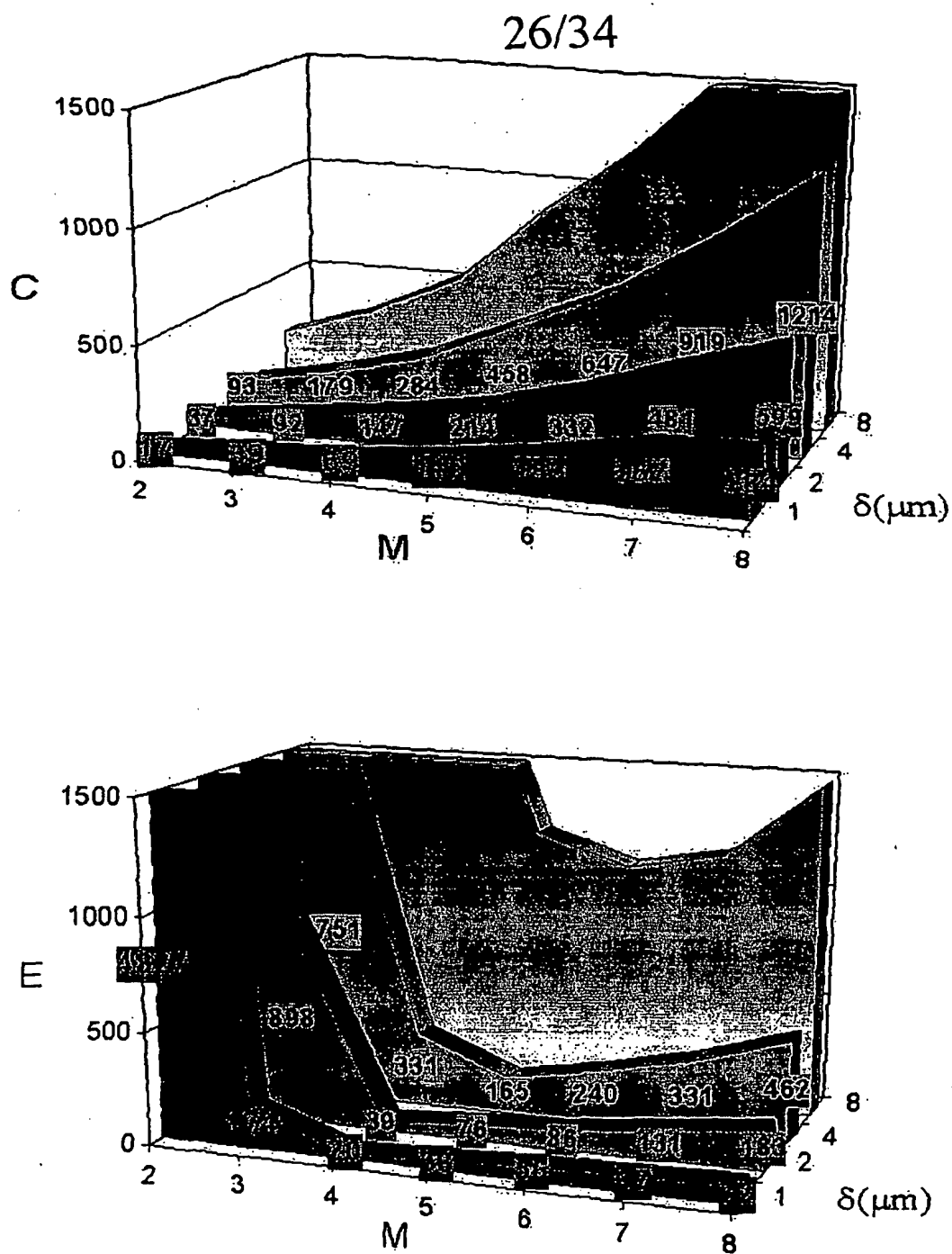


Fig. 11

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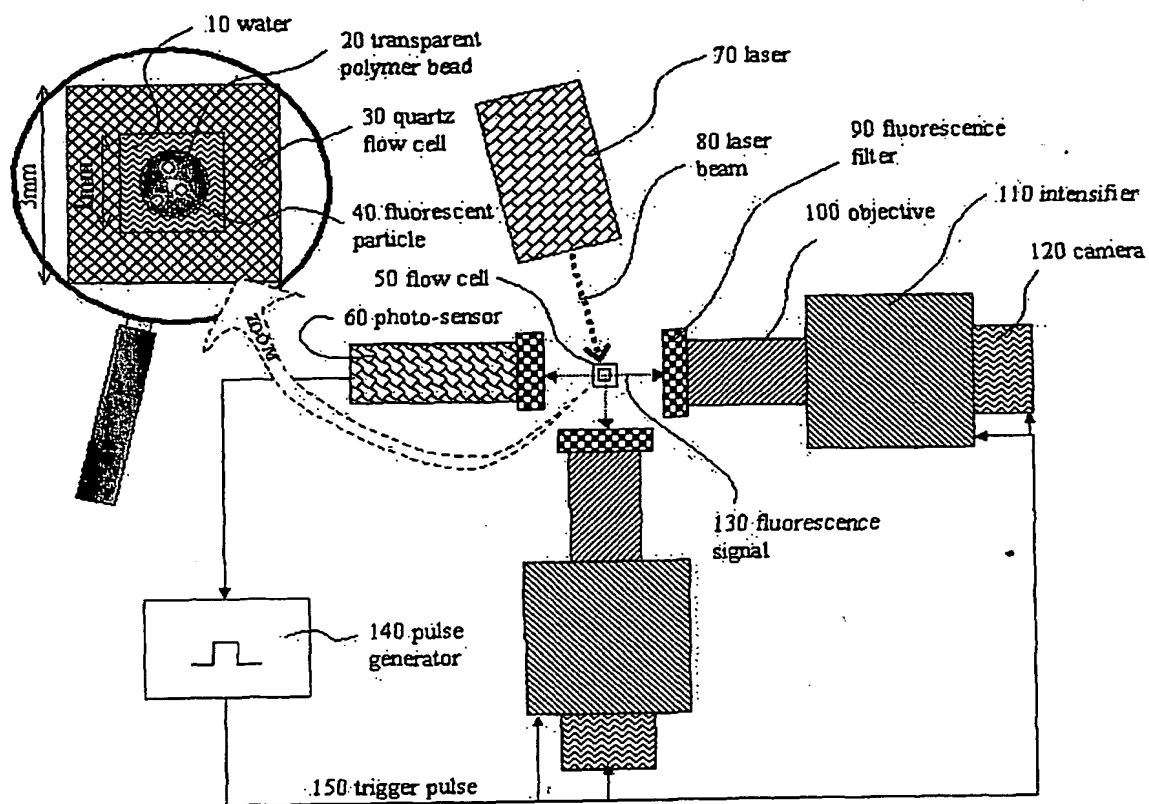


Fig.12

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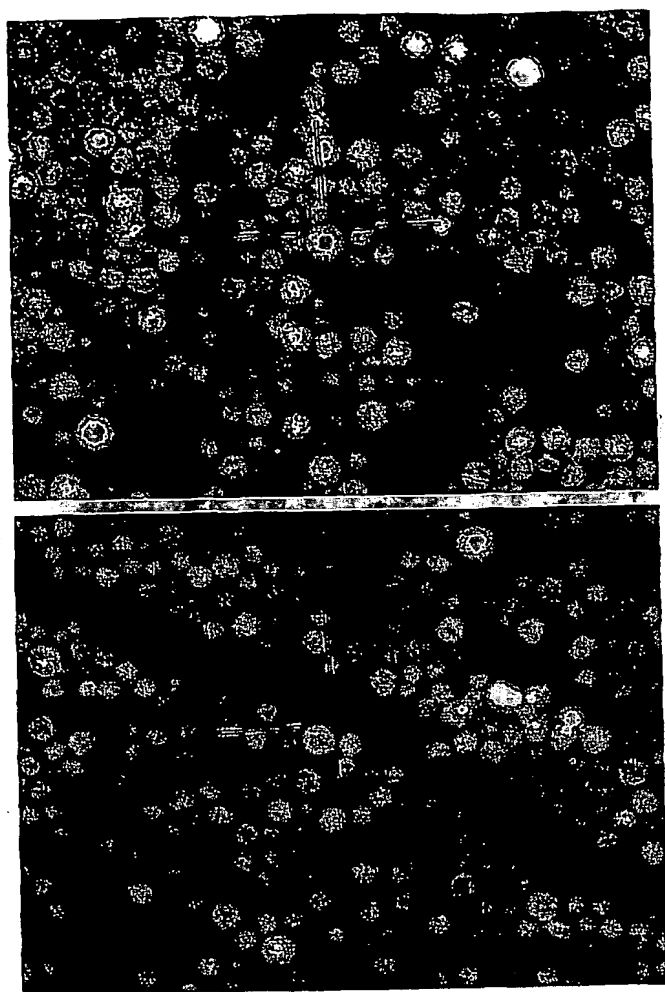


Fig. 13



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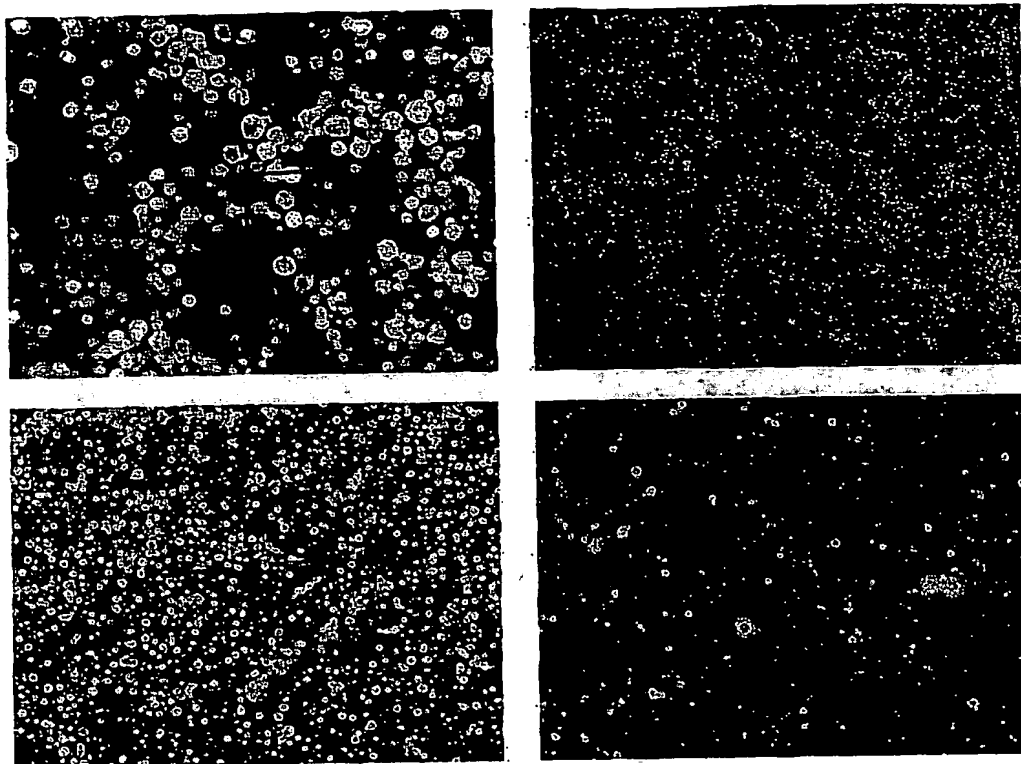


Fig. 16

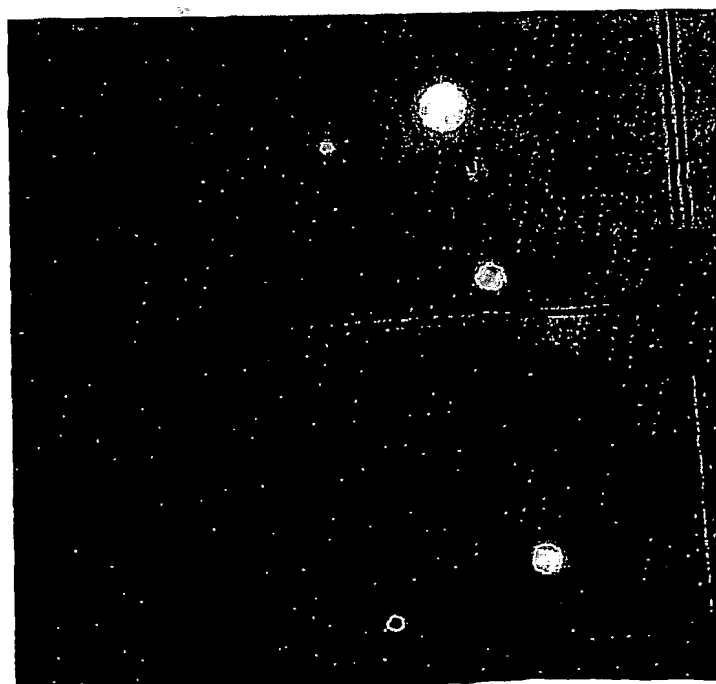


Fig. 17

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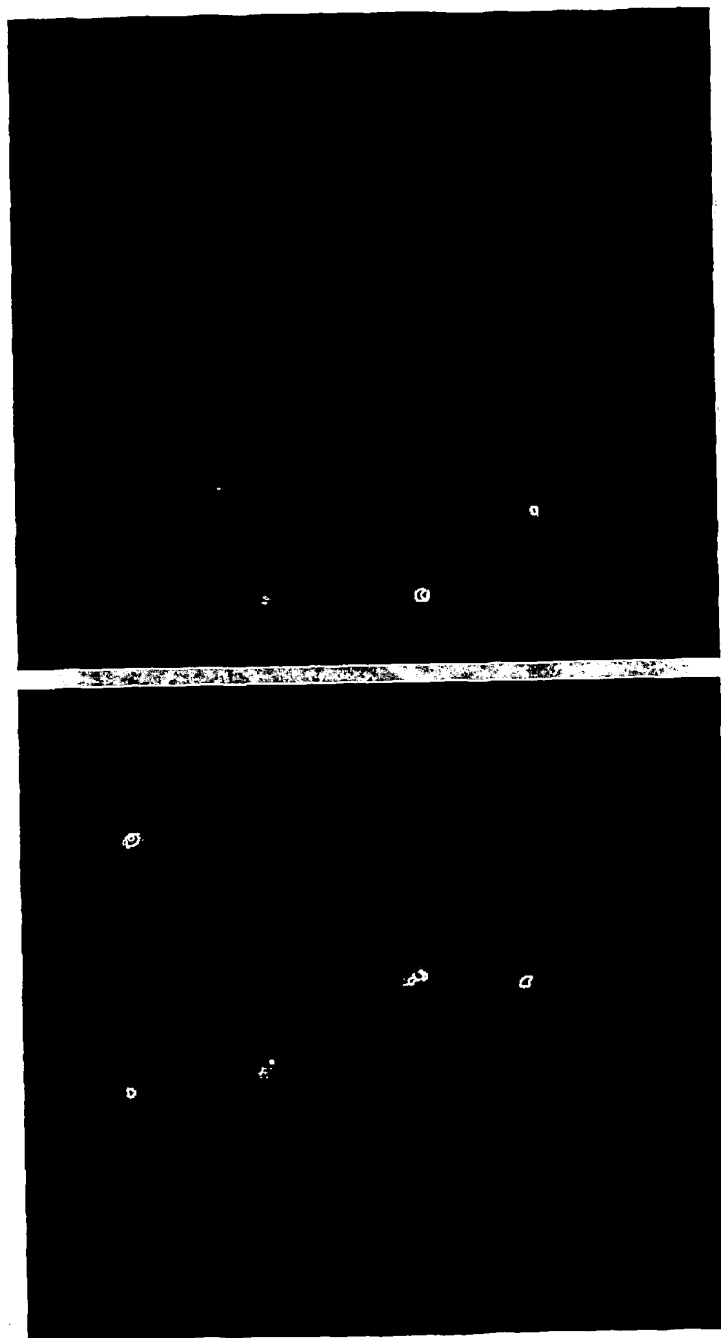


Fig. 18

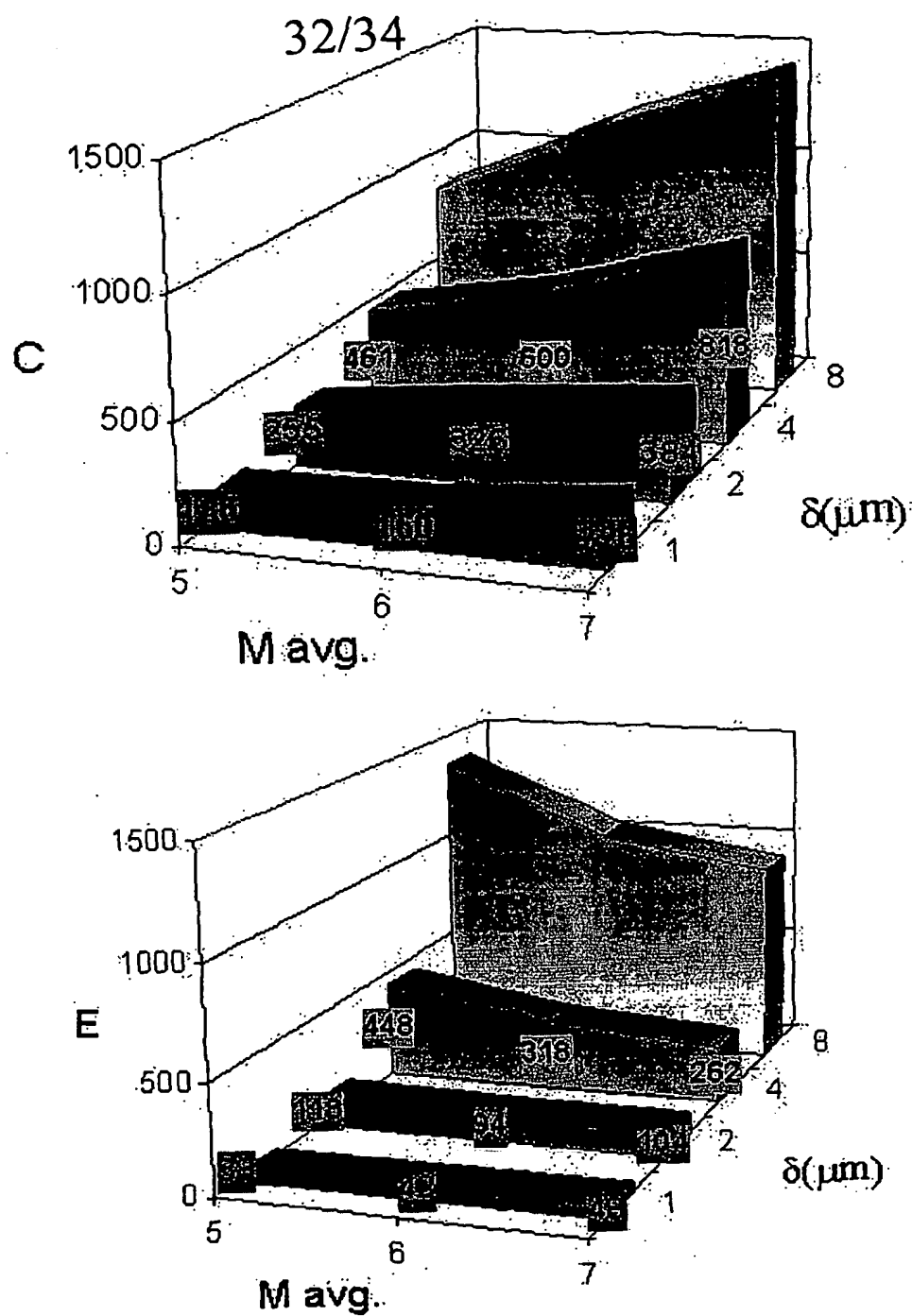


Fig. 19



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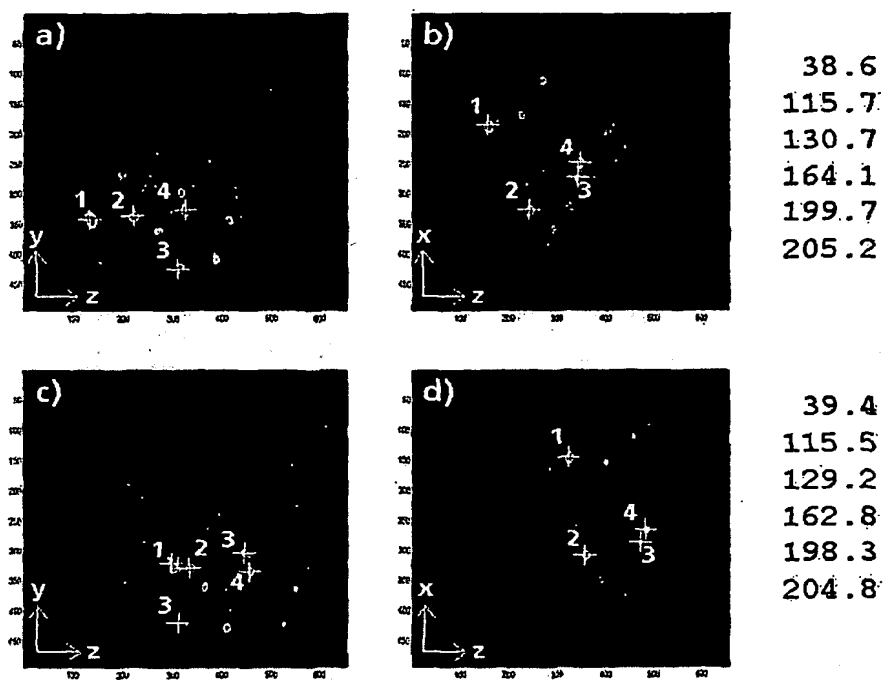


Fig. 20

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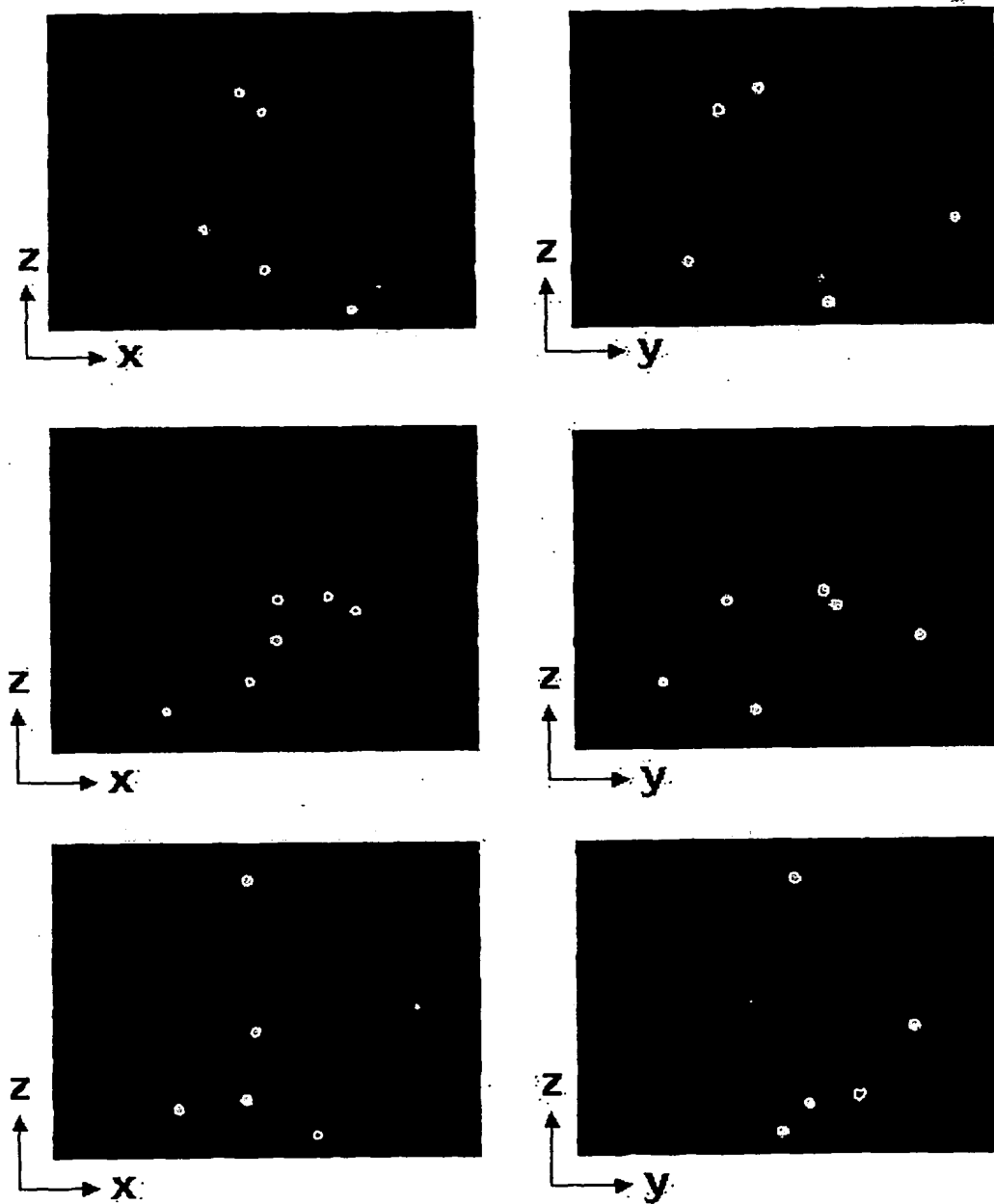


Fig. 21